

Amendments to the Specification

Please substitute the following paragraph at page 23, line 10 – page 24, line 13:

-- EXAMPLE II: Preparation of Albumin-EGF Fusion Gene

To amplify the EGF gene of Example I, PCR amplification was performed using the EGF gene as template and a pair of primers designed to introduce *Bam*HI and *Hind*III recognition sites into 5'- and 3'- termini of the gene, respectively. The nucleotide sequences of primers are: reverse primer 5'-CCC AAG CTT TCA GCG CAG TTC CCA CCA CTT-3'(SEQ ID NO:3); and forward primer 5'-CGG GAT CCA ACA GCG ATT CAG AAT GTC CAC-3'(SEQ ID NO:4). The PCR product was digested with *Bam*HI and *Hind*III and extracted. The EGF gene extracted and purified was ligated to pUC18 (Clontech, USA) digested with *Bam*HI and *Hind*III using T4 DNA ligase (KOSCO CO., KOREA). The resulting vector was transformed into CaCl₂-treated *E. coli* DH5 α (Clontech, USA) and then the transformed cells with ampicillin resistance were selected by culturing in LB medium containing ampicillin (100 mg/ml). The cloned plasmids (EGF/pUC18) were isolated from the transformed cells and then the existence of EGF gene was verified (Figs. 1 and 3).

PCR amplification was performed using cDNA of human serum albumin as template and a pair of primers designed to introduce *Eco*RI and *Bam*HI recognition sites into 5'- and 3'- termini of the gene, respectively. The nucleotide sequences of primers are: reverse primer 5'-CGG GAT CCA CCG GTA CGC GTA GAA TCG AGA CC-3'(SEQ ID NO:5); and forward primer 5'-CGG AAT TCA TGA AGT GGG TAA CCT TTA TTT CC-3'(SEQ ID NO:6). The PCR product was digested with *Eco*RI and *Bam*HI and extracted. The human serum albumin gene extracted and purified was ligated to EGF/pUC18 digested with *Eco*RI and *Bam*HI using T4 DNA ligase. The resulting plasmid was introduced into CaCl₂-treated *E. coli* DH5 α and then

the transformed cells with ampicillin resistance were selected by culturing in LB medium containing ampicillin (100 mg/ml). The cloned plasmids (Albumin-EGF/pUC18) were isolated from the transformed cells and then the existence of albumin-EGF fusion gene was verified (Figs. 1 and 3). --

Please substitute the following paragraph at page 24, line 26 – page 25, line 29:

-- **EXAMPLE III: Preparation of EGF-Albumin Fusion Gene**

To amplify the EGF gene of Example I, PCR amplification was performed using the EGF gene as template and a pair of primers designed to introduce *Bam*HI and *Hind*III recognition sites into 5'- and 3'- termini of the gene, respectively. The nucleotide sequences of primers are: reverse primer 5'-CGG GAT CCG CGC AGT TCC CAC CAC TTA AG-3'(SEQ ID NO:7); and forward primer 5'-CGG AAT TCA TGA ACA GCG ATT CAG AAT GTC CA-3'(SEQ ID NO:8). The PCR product was digested with *Bam*HI and *Hind*III and extracted. The EGF gene extracted and purified was ligated to pUC18 digested with *Bam*HI and *Hind*III using T4 DNA ligase. The resulting vector was transformed into CaCl₂-treated *E. coli* DH5 α and then the transformed cells with ampicillin resistance were selected by culturing in LB medium containing ampicillin (100 mg/ml). The cloned plasmids (EGF/pUC18) were isolated from the transformed cells and then the existence of EGF gene was verified (Figs. 1 and 3).

PCR amplification was performed using cDNA of human serum albumin as template and a pair of primers designed to introduce *Bam*HI and *Hind*III recognition sites into 5'- and 3'- termini of the gene, respectively. The nucleotide sequences of primers are: reverse primer 5'-CCC AAG CTT TCA ACC GGT ACG CGT AGA ATC-3'(SEQ ID NO:9); and forward primer 5'-CGG GAT CCA AGT GGG TAA CCT TTA TTT CCC-3'(SEQ ID NO:10). The PCR product

was digested with *Bam*HI and *Hind*III and extracted. The human serum albumin gene extracted and purified was ligated to EGF/pUC18 digested with *Bam*HI and *Hind*III using T4 DNA ligase. The resulting plasmid was introduced into CaCl₂-treated *E. coli* DH5 α and then the transformed cells with ampicillin resistance were selected by culturing in LB medium containing ampicillin (100 mg/ml). The cloned plasmids (EGF-Albumin/pUC18) were isolated from the transformed cells and then the existence of EGF-albumin fusion gene was verified (Figs. 2 and 3). --

Please substitute the following paragraph at page 27, line 17 – page 28, line 12:

-- EXAMPLE VI: Construction of Expression Vector for Plant Carrying Albumin-EGF Fusion Gene

To amplify the fused albumin-EGF gene, a pair of primers was designed and synthesized: forward primer, 5'-CTAGCTAGCGATGAAG TGGGTAACCTTTAT-3' (SEQ ID NO:11); and reverse primer, 5'-CTAGCTAGCCGCAGTTCCCAC CACTTAAGA-3' (SEQ ID NO:12). The forward primer was designed to have a start codon of albumin gene and *Nhe*I restriction site and the reverse primer was designed to have a stop codon of EGF gene and *Nhe*I restriction site. 25 μ l of PCR mixture was prepared containing 1.25 unit Taq DNA polymerase (Boehringer Mannheim), 2.5 μ l of 10x buffer (Boehringer Mannheim), 2 μ l of 2.5 mM dNTP, 0.25 μ l of 100 pM primers and 50 ng of the fused albumin-EGF gene which was prepared in Example II. The PCR was conducted using MinicycleTM (MJ Research Inc., USA) under the following conditions: pre-denaturation at 95°C for 2 min followed by 30 cycles of annealing at 55°C for 1 min, extension at 72°C for 1 min and denaturation at 92°C for 1 min; followed by final extension at 72°C for 10 min. Amplified products were analyzed by electrophoresis on 0.8% TAE agarose gel at the constant temperature of 4°C. The fused albumin-EGF gene was eluted

and obtained from the corresponding band. The fused albumin-EGF gene purified was digested with *NheI* and inserted into binary vector pRD400 (Raju et al., *Gene* 211: 383-384(1992)) digested with *XbaI*, finally constructing the expression vector of albumin-EGF gene for plant (Fig. 7).--

Please substitute the following paragraph at page 28, line 14 – page 29, line 1:

-- EXAMPLE VII: Construction of Expression Vector for Plant Carrying EGF-Albumin Fusion Gene

To amplify the fused albumin-EGF gene, a pair of primers was designed and synthesized: forward primer, 5'-CTAGCTAGCGATGAACAGCGATTCAGAATG-3' (SEQ ID NO:13); and reverse primer, 5'-CTAGCTAGCCCGGTACGCGTAGAATCGAGA-3' (SEQ ID NO:14). The forward primer was designed to have a start codon of EGF gene and *NheI* restriction site and the reverse primer was designed to have a stop codon of albumin gene and *NheI* restriction site. The PCR amplification was conducted according to the same manner as Example VI. The EGF-albumin gene obtained was digested with *NheI* and inserted into binary vector pRD400 digested with *XbaI*, thus constructing the expression vector of EGF-albumin gene for plant (Fig. 7). --

Please substitute the following paragraph at page 34, line 15 – page 35, line 3:

-- EXAMPLE IX: Verification on Transformation of Plant

The transformants in Example VIII were verified as described below:

Using ten mg of the shoots rooted that were considered to be transformed, a genomic DNA for PCR analysis was obtained according to the method described by Edwards K., et al. (*Nucleic Acids Research*, 19: 1349(1991)) and then PCR analysis was performed.

The primer set for PCR analysis of plant transformed with albumin-EGF fusion gene is: forward primer, 5'-CTAGCTAGCGATGAAGTGGGTAACCTTTAT-3' (SEQ ID NO:11); and reverse primer, 5'-CTAGCTAGCCGCAGTTCCACCACTTAAGA-3' (SEQ ID NO:12).

The primer set for PCR analysis of plant transformed with EGF-albumin fusion gene is: forward primer, 5'-CTAGCTAGCGATGAACAGCGATTCAGAATG-3' (SEQ ID NO:13); and reverse primer, 5'-CTAGCTAGCCCGGTACGCGTAGAATCGAGA-3' (SEQ ID NO:14). --